CLAIM AMENDMENTS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of the Claims:

1. (Currently Amended) In a communication network provided with a Network Management System (NMS) maintaining a network topology map and one or more Element Management Systems (EMS) that manage a plurality of network entities, each EMS maintaining a respective EMS topology map, a method of synchronizing said network topology map with a respective EMS topology map, comprising the following steps:

receiving, at said NMS, a user request for a hierarchy altering operation, said user request comprising topology change data for at least one of said network entities;

verifying validity of said user request with respect to each EMS against a set of rules and limitations associated with said respective EMS, and, after said user request has been validated:

altering said network topology map according to said topology change data in said user request;

automatically sending, from said NMS to said EMS, a change request comprising said topology change data; ~~and~~

updating said EMS topology map according to said change request;

automatically propagating said topological change data from said EMS to said NMS; and

preventing an administrator from making any topological changes to an added network entity.

2. (Previously Presented) The method of claim 1, further comprising the step of sending an acknowledgement from said EMS to said NMS to inform said NMS that said EMS topology map has been updated.

3. (Currently Amended) The method of claim 1, wherein said topology change data refers to at least one of adding, upgrading, moving, removing, and renaming ~~a network entity~~ at least one of said network entities.

4. (Previously Presented) The method of claim 3, wherein said network entity is selected from the group consisting of a node group, a network node, and a network element.

5. (Previously Presented) The method of claim 1, further comprising the step of providing an error message whenever said user request is invalid.

6. (Original) The method of claim 1, wherein said step of verifying validity of said request comprises checking the syntax and the completeness of said user request.

7. (Previously Presented) The method of claim 1, wherein said step of verifying comprises checking location identification data in said user request.

8. (Currently Amended) The method of claim 7, wherein said location identification data provide the hierarchical location of ~~a network entity~~ at least one of said network entities to which said topology change data are applied.

9. (Original) The method of claim 5, wherein said error message specifies that said user request includes invalid characters.

10. (Original) The method of claim 5, wherein said error message specifies that said user request includes incorrect location identification data.

11. (Currently Amended) The method of claim 10, wherein said incorrect location identification data comprise at least one of an incorrect network entity name, an

incorrect specification of at least one of said network entities, and a missing name for ~~a network entity~~ at least one of said network entities.

12. (Previously Presented) The method of claim 1, further comprising the step of identifying at said NMS which EMS is affected by said user request, for selectively sending said change request to said affected EMS managing one or more affected network elements.

13. (Previously Presented) The method of claim 1, further comprising the steps of:

cyclically checking the state of said EMS,

storing said change request whenever said EMS is temporarily in an `off state`, and

providing said change request to said EMS when said EMS is back in an `on state`.

14. (Currently Amended) In a communication network provided with a Network Management System (NMS) maintaining a network topology map and one or more Element Management Systems (EMS) that manage a plurality of network entities,

each maintaining a respective EMS topology map, a method of synchronizing said network topology map with an EMS topology map, comprising the following steps:

receiving, at said EMS, a user request for a hierarchy altering operation, said user request comprising topology change data pertinent to ~~a network entity~~ at least one of said network entities;

automatically sending, from said EMS to said NMS, a change request comprising topology change data for at least one of said network entities;

at said NMS, verifying validity of said user request with respect to each EMS against a set of rules and limitations associated with said respective EMS; ~~and~~

after said user request has been validated, altering said network topology map according to said topology change data in said user request;

automatically propagating topological changes from said EMS to said NMS, and

preventing an administrator from making any topological changes to an added network entity.

15. (Original) The method of claim 14, wherein said EMS disables any subsequent user requests involving said topology change data from said EMS, for enabling user request pertinent to said network entity from one localized place.

16. (Currently Amended) A Network Management System (NMS) for a communication network having a plurality of Element Management Systems (EMS) that manage a plurality of network entities, comprising:

a network topology map comprising all of said network entities in said communication network and hierarchical information on locations of said network entities;

a user interface for enabling said NMS to receive a user request comprising topology change data pertaining to a specified network entity;

means for verifying validity of said user request relative to each EMS against a set of rules and limitations associated with said respective EMS;

means for changing said network topology map according to said topology change data after said user request has been validated; ~~and~~

means for generating from said user request a change request comprising said topology change data and automatically sending said change request to an Element Management System (EMS) affected by said user request;

automatically propagating said topological change data from said EMS to said NMS; and

preventing an administrator from making any topological changes to an added network entity.

17. (Previously Presented) The NMS of claim 16, wherein said hierarchical information on location of said network entities provides a location of a network element in at least one of the entire network, in a node group, and a network node.

18. (Previously Presented) The NMS of claim 16, wherein said network topology map is stored in a NMS database.

19. (Original) The NMS of claim 16, further comprising

means for identifying said EMS affected by said user request.

20. (Canceled)

21. (Original) The NMS of claim 16, wherein said means for verifying comprises a list of syntax errors, invalid characters, and empty node group names.

22. (Currently Amended) In a communication network provided with a Network Management System (NMS) maintaining a network topology map with all network entities in said communication network and with hierarchical information on locations of said network entities, ~~an~~ at least one Element Management ~~Systems~~

System (EMS), each said EMS managing a plurality of network entities and being monitored and controlled by said NMS, comprising:

an EMS topology map including a subset of said network entities and hierarchical information on location of said network entities in said subset;

means for receiving, from said NMS, a change request comprising topology change data for at least one of said network entities;

means for verifying validity of a user request with respect to each EMS against a set of rules and limitations associated with said respective EMS before sending the user request to each EMS; ~~and~~

means for changing said EMS topology map according to said topology change data;

automatically propagating said topological change data from said EMS to said NMS; and

preventing an administrator from making any topological changes to an added network entity.

23. (Original) The EMS of claim 22, further comprising

a user interface for enabling said EMS to receive a user request comprising said topology change data pertaining to a specified network entity in said subset of network entities.

24. (Original) The EMS of claim 23, further comprising

means for automatically sending said user request to NMS.

25. (Original) The EMS of claim 23, further comprising

means for disabling any subsequent user requests involving said topology change data from said EMS, for enabling user request pertinent to said network entity from one localized place.

26. (Original) The EMS of claim 22, further comprising

means for cyclically checking the state of said EMS, storing said change request whenever said EMS is temporarily in an `off state`, and providing said change request to said EMS when said EMS is back in an `on state`.

27. (Currently Amended) In a communication network provided with a Network Management System (NMS) maintaining a network topology map and managing a plurality of Element Management Systems (EMS), each said EMS managing a plurality of network entities and maintaining a respective EMS topology map, a method of resynchronizing said EMS topology map with said network topology map, comprising the following steps:

receiving, at said NMS, a user request for a resynchronization of said network topology map with said EMS topology map;

verifying validity of said user request with respect to each EMS against a set of rules and limitations associated with said respective EMS; ~~and,~~ and

after said user request has been validated:

automatically sending, from said NMS to each said EMS ~~of said EMS's~~ affected by said request, updating topology data relevant to at least one of said network entities managed by said affected EMS; ~~and~~

updating each said EMS topology map of each said affected EMS according to said updating topology data;

automatically propagating said topological change data from said EMS to said NMS; and

preventing an administrator from making any topological changes to an added SAM.